

Amendments to the Claims

The listing of claims presented below replaces all prior versions, and listings, of claims in the application.

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Listing of claims:

1. (Previously presented) A method for increasing the chrome to iron ratio of a chromite product selected from the group consisting of ore and ore concentrate comprising the steps of

a. mixing the chromite product with at least one salt so as to produce a mixture, whereby the concentration of salt in the mixture is selected to induce the selective chlorination of iron; and

b. chlorinating the mixture in the presence of CO at a temperature sufficient to induce the formation of a thin film of a melt around the chromite product and at a temperature able to promote the selective chlorination of iron, and forming gaseous FeCl_3 ,

whereby an iron impoverished chromite product is yielded having an increased chromite to iron ratio as compared to that of the chromite product.

2. (Previously presented) The method of claim 1, wherein said temperature is between about 157° and about 750°C.

3. (Previously presented) The method of claim 1, wherein the at least one salt is selected from the group consisting of NaCl , KCl and MgCl_2 and a combination thereof.

4. (Previously presented) The method of claim 1, wherein the salt is NaCl and forms about 5% to about 10% w/w of the mixture.

5. (Previously presented) The method of claim 1, wherein the salt is NaCl and forms about 5% w/w of the mixture.

6. (Previously presented) The method of claim 1, wherein the temperature is

between about 250° and about 720°C.

7. (Previously presented) The method of claim 1, wherein the temperature is between about 670° and about 720°C.

8. (Previously presented) The method of claim 1, wherein a ratio of Cl₂/CO is between about 0.5 and about 1.5.

9. (Previously presented) The method of claim 1, wherein the mixture is dried before chlorination.

10. (Currently amended) The method of claim 1, wherein N₂ is used as a carrier [[gaz]] gas during chlorination.

11. (Previously presented) The method of claim 1, wherein the duration of the chlorination is about 30 minutes to about 2 hours.

12. (Previously presented) The method of claim 1, wherein the duration of the chlorination is about 2 hours.

13. (Previously presented) A method for increasing the chrome to iron ratio of a chromite product selected from the group consisting of ore and ore concentrate comprising the steps of

a. mixing the chromite product with NaCl so that a mixture is produced having about 5% to about 10% NaCl w/w; and

b. chlorinating the mixture in the presence of CO at a temperature sufficient to induce the formation of a thin film of a melt around the chromite product and at a temperature able to promote the selective chlorination of iron, and forming gaseous FeCl₃,

whereby an iron impoverished chromite product is yielded having an increased chromite to iron ratio as compared to that of the chromite product.

14. (Previously presented) The method of claim 13, wherein said temperature

is between about 157° and about 750°C.

15. (Previously presented) The method of claim 13, wherein the salt is NaCl and forms about 5% w/w of the mixture.

16. (Previously presented) The method of claim 13, wherein the temperature is between about 670° and about 720°C.

17. (Previously presented) The method of claim 13, wherein a ratio of Cl₂/CO is about 0.5 and about 1.5.

18. (Previously presented) The method of claim 13, wherein the mixture is dried before chlorination.

19. (Currently amended) The method of claim 13, wherein N₂ is used as a carrier [[gaz]] gas during chlorination.

20. (Previously presented) The method of claim 13, wherein the duration of the chlorination is about 30 minutes to about 2 hours.

21. (Previously presented) The method of claim 13, wherein the duration of the chlorination is about 2 hours.

22. (Previously presented) A method for extracting iron from a chromite product selected from the group consisting of ore and ore concentrate comprising the steps of

- a. mixing the chromite product with at least one salt; and
- b. chlorinating the mixture in the presence of CO at a temperature sufficient to induce the formation of a thin film of a melt around the chromite product so as to promote the chlorination of iron, and forming gaseous FeCl₃,
whereby an iron impoverished chromite product is yielded.